Interconnecting IPv6 Multicast Islands over IPv4 Using IPv6 Multicast Provider Edge Routers

draft-wang-mboned-glo-ipv6-mcast-reachability

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Motivation

- As a companion document of MVPN(RFC6513) and MVPN-BGP(RFC6514)

- Aim at the solution of IPv6 multicast transition scenario.

Scope & Context

- Present a method to interconnect IPv6 multicast islands over an IPv4 cloud ----6MPE(IPv6 Multicast Provider Edge Router)
  - 6PE(IPv6 Provider Edge Router) is an unicast transition solution, and 6MPE is a multicast transition solution
  - MVPN-BGP is a VPN solution, and 6MPE is a non-VPN solution
  - NO VPN concepts such as VRFs tables , RD and aggregation etc
- Provide global IPv6 Multicast Reachability
  - crossing IPv4 core network
  - Crossing IPv6 core network

Scope & Context

- Extend Multiprotocol-BGP
  - Define a new Network Layer Reachability Information(NLRI):MCAST-IPv6 NLRI
    - Seven Route Type: cite and modify the Route Type defined in MVPN-BGP(RFC6514)
  - Cite and Modify PMSI Tunnel Attribute defined in MVPN-BGP(RFC6514)
    - Seven Tunnel Type: not limited to IPv4 MPLS core network
  - Cite source Autonomous System(AS) Extended Community Attribute defined in MVPN-BGP(RFC6514)
- This service can co-exist with other services
  - IPv4 connectivity
  - IPv4 L2VPN/L3VPN connectivity
  - 6PE
  - MVPN-BGP
  - And so on.

Acknowledge

- Any Comments?

Next Step

- Adopt the document as a WG item?